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TERMS.—The Farmer is published every Saturday, making an annual volume of 416 pages, to which is added a Title-page and Index, at the low price of $2,50, or $2,00 if payment is made at the time of subscribing.

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☞ THE MONTHLY GENESEE FARMER is made up of selections from this paper, and published on the first of each month, forming, with Title-page and Index, an annual volume of 200 pages, at the low price of FIFTY CENTS a year, *payable always in advance.*

THE GENESEE FARMER.

SATURDAY, JAN. 30, 1836.

NOTICES.

☞ Postmasters will confer a favor by returning to us all copies of Nos. 1, 2 and 3, of the Farmer for the present year, which may remain in their offices.

☞ We frequently have papers returned as refused, without the name of the Post-office to which they were sent being written on them. We have no way to find such names on our books. The name of the *post-office* should always be given.

☞ The Fifth Volume of the Genesee Farmer, bound, may now be had at this office—price $2,50. As we have but few copies left, none will be sent out for sale as heretofore, and it will be necessary for those who want copies of it, to make early application.

☞ We wish to procure several copies of the Third Volume of the Farmer to enable us to complete a few sets of the work, for which a fair price will be paid, depending on the manner of their preservation.

HOT-BED FRAMES.

These should be constructed a month or two before the time they will be needed for use. This will afford time to give them two or three coats of paint, which will greatly contribute to their durability. Old frames should also be occasionally painted as they require it.

The common mode of making hot-bed frames, is to dove-tail the ends of the plank together at the corners, so that they are connected immovably and cannot be taken apart. By the following contrivance, they are so fastened together as to be easily taken to pieces, and thus conveniently laid aside when not in use. The back and front pieces are securely nailed at their ends to corner posts. These posts are about three inches square, and of a length equal to the width of the pieces of plank which form the back and front sides. Large headed wrought nails should be used, and clinched to prevent the warping of the plank. The end pieces of the frame are made fast to the posts with iron bolts, keyed on the inside. When the frame is to be taken apart these keys are withdrawn, and it is done at once.

Except for very small hot-beds, the sides of the frame should be made of plank at least an inch and a half thick, and where practicable, such wood should be selected as is least liable to warp by moisture. The front side should be about ten inches high, the back twenty, and the ends sloping correspondingly, that the lights when placed upon it, may have descent enough to carry off rain, and receive more directly the sun's rays. The dimensions of hot-beds of ordinary size, are, about 4 feet wide and from 9 to 12 feet long; but the *precise* length and breadth must be governed by the size of the panes employed. When it is merely intended to forward early vegetables for subsequent transplanting, a very small hot-bed will be sufficient for one family; one of half the dimensions above named, would afford a large supply.

AGRICULTURAL KNOWLEDGE.

We think that in the great body of our farmers, there is a very culpable and injurious neglect of the means of intelligence, and particularly so on subjects connected with their own business. We believe that a greater indifference exists among them, than can be found among any other class or profession in our country, and it is to them we consider a general knowledge of the science as well as practice of agriculture most important. Merchants feel a deep interest in the success of trade, and study the shipping list and the price current with the closest attention—the mechanic who aims at success in his business, makes himself acquainted with the theory as well as the practice of his art—the doctor and the lawyer can only reach honorable eminence and wealth by much study and toil, and a thorough acquaintance with the principles of their profession—and that divine must be considered as guilty of the greatest presumption, who, without the preparation of years, rushes into the sacred desk. The farmer only, he whose business is the basis of the whole—he who, to use a phrase not the less true because it is trite, is the bone and muscle of society, upon whose intelligence and good morals the general prosperity and happiness of the country depend—he to whom we must look for safety in the turmoils of faction, and upon whom we rely for the supremacy of the law, he only submits his success to chance, and enters upon his business for life, as if it was incapable of, or needed no improvement, and was one which comes as a matter of course, or by inheritance. We think there is not a sufficient spirit of inquiry on questions of vital importance to them; while all the world is in motion around them, they are content to look on, and continue to do as their fathers have done, apparently unwilling to open their eyes, lest they should be convinced the course they have pursued, and which they are still following, is not such as will bear investigation in the light which science and experience has within a few years thrown around the operations of the farmer. We do not think this is a healthy state of feeling—certain we are it is one which the farmer would, and of right should, be the first to condemn, were it indicated by the conduct of any of those we have before mentioned. We are anxious that the farmer should assume and maintain the place to which he is entitled in the community—that his influence should be felt, not passively, but actively—and that he should personally maintain a watchful supervision over all matters that properly belong to him, things which can only be done by the acquisition of knowledge. This is the magical key which, directed by industrious hands, opens the sources of wealth and power. We do not wish to have the farmer become a speculatist and vagarist; we do not wish to have him acquire knowledge to make him proud and ashamed of his business; we have no wish to see a book or even a paper in his hands when they should be holding the plough or gathering the harvest; but there are hours enough in the heat of summer, and the long evenings of winter, if properly employed, to give him a general knowledge of the science of agriculture, the nature and qualities of soils, and the improvements making in his business. That farmer does not stand an equal chance for success—he does not enter the field of competition fairly and on equal ground with the better informed, if he does not receive some valuable agricultural journal, and make it part of his reading. We have no wish to dictate his choice. We are happy to say there are several in the country deserving the most liberal support and circulation, and which we think no one can read without interest and profit; but we would most earnestly urge upon every farmer the consideration whether the soundest principes of utility and economy do not demand that they should give, by immediate subscription to some work of this kind, a proof that they are not ignorant or inattentive to their true interest. G.

PRUNING GOOSEBERRIES.

A very suitable season for performing this operation is in winter, and it may conveniently be done whenever mild or open weather will permit. Gooseberries, in order to produce good fruit, should be kept thin of branches; all the irregular and crooked ones, and old worn out bearers, should be cut out, leaving the most thrifty and the straitest shoots, which should be at nearly equal distances asunder. As the admission of air and light is essential to the perfection of the fruit, it will generally be necessary to prune off all superabundant shoots of last year's growth, and the lateral shoots on the larger branches, always cutting closely, so as to leave no stumps. A good terminal shoot should always be left to each branch, except it be unusually long, when it should be removed and a good lateral one left in its place.

The practice of clipping gooseberry bushes with garden shears, which is sometimes performed, should never be resorted to, as it only renders the growth more dense, and the branches more numerous, producing an effect directly the reverse of judicious pruning,

New Governor for Upper Canada.

Sir FRANCIS HEAD, the writer of "Bubbles from the Brunnens of Nassau," has been appointed Governor of Upper Canada, and passed through this city last week on his way to Toronto. Two extracts from that

elegant and entertaining work, may be found at pages 281 and 297 of our 4th volume.

GREASE FOR WHEEL-AXLES.

(*See page 7, current volume.*)

It is chiefly to give consistency to the composition that *tar* is mixed with grease for the hubs and axle-trees of wagons; and it answers this purpose well while it continues to be soft; but as the oily parts escape, the tar approaches to the nature of pitch, and absolutely increases the friction. Travelers who use this preparation have therefore to apply it frequently. During the fatigues of a journey, even the *care* of such repetitions is unpleasant; and we have long since entirely discarded tar as a lubricant.

It is now more than twenty years since we employed the following composition which was revealed to us as a great secret, and for which money had been usually demanded: *Thicken half a pint of melted grease with black lead in powder, having previously thrown in and melted a lump of bees-wax of the size of a small hickory nut.* Apply it to the hubs and axles before it hardens.

By using this composition we have on various occasions driven our carriage two or three hundred miles without once greasing it after we started; and subsequent examinations have satisfied us that no attention of the kind, is necessary on such journeys.

We add a few precautions. In warm weather, we use tallow in preference to soft grease. Black lead is sometimes gritty—that is, contains sand,and such should be rejected. If tar has been previously applied to the hubs and axles, it ought to be *very carefully* removed before the composition is applied; and until the pores of the wood become filled with the composition, it may escape from the boxes in that way, and render frequent examinations for the first few weeks, necessary.

A New Method of Striking Cuttings.

BY ALEXANDER FORSYTH.

A new mode of striking cuttings, I have proved to be far superior to the ordinary practice; and which is so extremely simple that I think it is likely to be adopted, as well by the amateur cottage matron with her pinks and wall flowers, as by the professed propagator of valuable exotics. It is as follows:

Take a wide-mouthed 48-sized pot and crock it in the usual manner with broken tiles, &c.; then take a wide-mouthed small sixty (pot) and spread clay in the bottom of it to stop the hole; then place it inside of the other, on the top of the crocking, so that the brims of both pots may be on a level. Then fill in the space between the pots with sand, or other propagating soil, according to the nature of the plant to be propagated; and let the cuttings be inserted with their lower extremities against the inner pot. Plunge the pot in a cutting frame, or under a bell or hand glass, in a shady place out of doors, according to the nature of the cuttings and the season of the year; and let the inner pot be filled and kept full of water.

The advantages to be derived from this method are numerous, and must be evident even to the casual observer; the principal of these are: the regularity of the supply of moisture, without any chance of saturation; the power of examining the state of the cuttings at any time without injuring them, by lifting out the inner pot; the superior drainage, so essential in propagating, by having such a thin layer of soil; the roots being placed so near the sides of both pots; and the facility with which the plants when rooted, can be parted for potting off, by taking out the inner pot, and with a common table knife or the like, cutting out every plant with its ball, without the awkward, but often necessary, process of turning the pot upside down to get out the cuttings.

[The foregoing article is from Loudon's Gardener's Magazine. We have not deemed it necessary to copy the figure which is there given; though one explanatory remark may be useful: the lower end of the cutting enters the sand at an equal distance between the two pots, and it is then pressed downwards, *slanting* through the sand till it touches the (outside) of the inner pot. See our remarks on striking cuttings at page 000 of our current volume.]

THE MORUS MULTICAULIS.

We have received from the Editor of the Baltimore *Farmer and Gardener*, a copy of his SILK MANUAL heretofore noticed in this paper, for which we tender him our thanks. From the hasty view we have had leisure to take of its contents, we doubt not it will prove a highly valuable acquisition to the silk culturist. From it we copy the following letter to Mr. E. P. ROBERTS, the Editor:

Sir—Having seen many statements and suggestions in the public prints, that the Chinese Mulberry, *Morus multicaulis*, was not as hardy as the White Mulberry; that it would not bear the extreme cold of our winters, &c., I deem it proper to state my own observations on the subject. I was the first person south of New York, who had the Morus multicaulis. It was sent to me by my old friends, Wm. Prince & Sons, in 1828, in a collection of seven other varieties of Mulberry. It was not then known by its present name, but was called the Phillipine Island Mulberry, and I believe was received by the Messrs. Prince direct from those Islands. About a year after I received it, accounts were received from France of the receipt of the Morus multicaulis, and of its great value for feeding worms. On examining my trees, I at once found that my Phillipine Island Mulberry was the Multicaulis, and immediately commenced feeding my silk worms with it; and from experiment ascertained the truth of all the French had said about it. From that time to this I have continued to urge upon all the propriety of cultivating this, in preference to the White Mulberry. Its advantages are—it is *fully as hardy* as the White; one pound of its leaves contain as much nutritive matter as a pound and a half of the White; the silk made from it is of a finer texture and more lustrous; its leaves are so large that a pound can be gathered at half the expense and trouble that a pound of White Mulberry leaves require; it can be cultivated with infinitely more despatch than any other kind. These are all great advantages, and I am so well convinced of the correctness of this statement, that I do not hesitate to say, that within ten years no other Mulberry will be cultivated for feeding silk worms; simply because those who feed silk worms upon White Mulberry leaves will not be enabled to compete with those who feed on Morus multicaulis, and they will be either compelled to abandon the silk business, or adopt the Multicaulis for feeding. In relation to the hardiness of the Morus multicaulis, I have to remark, that I have cultivated it for *seven years*; never protected it in any manner whatever, and never lost a tree by the cold of winter or any other way. I had fifty young trees in my garden last winter, and not even a bud on the extremity of the branches was injured. It is true, about 50 yards west from where the young trees stood, there is a grove of oak trees, and on the north,50 yards distant, my dwelling house stood; and the garden has an exposure to the south with a gentle declination. But my residence in the winter of 1821–2, was very different. It was on a farm four miles in the country, in a north-east direction; the situation at an elevation of 300 or 400 feet above tide water. There my Morus multicaulis had an open exposure to the north-west wind; yet none were injured. During the whole time I have had the White Mulberry of various varieties, and have observed that they were all equally hardy—none more so than the Multicaulis. I have seen the young *unripened wood* of all the varieties destroyed by the winter, and was very early led to adopt measures to guard against it, and now I never lose a *bud*.

None but the young trees are ever injured by winter, and all we have to do is to give *them* such a start, as to enable them to ripen their wood previous to the approach of very cold weather. I raise all my trees from cuttings in a hot bed. About the 1st of March I make an ordinary hot bed like those used for raising cabbage plants; then I take the young wood of last year's growth, and cut it into pieces about two inches long, merely leaving a single bud on each; these pieces I stick into the hot bed three inches apart in a slanting direction, the upper end inclining to the north, and burying it so that the point of the bud is barely seen at the surface of the earth; sprinkle the bed with a watering pot, and put on the glasses; keep the bed properly moistened by watering every day, and throw matting over the glass at night, and in the middle of the day, to protect them from frost and hot sun. By the middle of May, the plants will be four to six or eight inches high, and may then be transplanted to the place they are to grow, like cabbage plants, watering them once a day for eight or ten days, if the weather is dry; they will be found to be well rooted, and will grow four to six feet the same season, and will ripen their wood so that the ensuing winter will not injure them. After the first year I have never seen any of them lost by winter, except in some extra cases, and in these cases the White Mulberry has suffered, and even the native Mulberry, fully as much as the Multicaulis. Last winter, a White Mulberry tree,seven or eight years old, in the western part of the city of Baltimore, was killed to the ground, while my Morus multicaulis, not a quarter of a mile from it, and north of it too, and in a higher situation, was not injured.

In fine, sir, I am in no way interested now in the business of raising mulberry trees or silk, so that I can be influenced by no mercenary consideration in giving my opinion as above, and therefore the more dependence may be placed on these suggestions. The manner of propagating as above described, is my own discovery, and has been practiced by me for four years with invariable success. I would earnestly recommend it to all who are preparing for the silk business. I would also mention, that in 1832 I had fruit on one of my trees, which furnished good seed,from which I raised several trees, which were exactly like the parent tree. The seedling trees grew so slow, however, and the seed bed was so troublesome to keep clean of weeds, that were my trees to produce ever so much seed, I should never use it, trees being so much easier raised as above from cuttings. The Morus multicaulis is evidently as distinct a species as is the alba, rubra, nigra, &c., and its seed therefore produces its like, the late publication in the eastern papers to the contrary notwithstanding. I suspect the seed obtained from China, and distributed in New England, was more or less mixed with other kinds. The fruit of Morus multicaulis is *black*, small, (less than the white,) of a pleasant, acid taste; the juice stains the hands first deep purple, and when exposed to the air very black, re-

quiring the acid of chloride to take it off; hence I infer that it will make a handsome dye.

Very respectfully yours,
GIDEON B. SMITH.

From the Farmer and Gardener.

The Way to Accumulate Manure.

There are perhaps no people in the world who so well understand the art of accumulating manure, as those farmers in Holland and Flanders, who are engaged extensively in the business of grazing and dairymen. Their farms are perfect patterns of neatness. Every thing is managed so as to economize time and money, keep down noxious vegetation, promote the growth of crops, and make the greatest possible quantity and best quality of manure.

This is as much the result of necessity as of the force of habit; for from the great number of individuals a small portion of land is made to support, every foot in cultivation is taxed with the maximum product of which it is susceptible of being made to yield. *There*, it is not a question, who shall have the largest fields in culture?—no such senseless ambition enters into the farmer's brain; the only spirit of rivalry that prevails, is, who can make the soil produce the most? They know that where a population is dense to excess, the means of multiplying the productions of the earth must not only be studied as a science, but as a practical one; and they know, too, that judicious manuring lies at the very foundation of good farming—that any system of husbandry which does not contemplate the providing full supplies of alimentary and calcareous manures, must in the natural course of things be a defective one, and hence the sedulousness with which they husband every species of offal, vegetable, and other material that can be converted into nutrition for plants. As but few of our farmers understand the value of exerting a just economy in this particular branch of agriculture, or if they do, do not act in accordance with the dictates of their knowledge, we will sketch from *Lawrence*, the outline of the mode pursued by the very notable farmers to whom we have before alluded.

"They make at the back of their stables and cattle sheds, a large round hole of about three feet deep, and capacious enough to contain one month's dung: the sides and bottoms of this are built water tight of clinker bricks, or stones. The floors of their cattle sheds are also made hard, dry, and water-tight, with water-tight drains to lead to another pit made in the same manner, also at the back of the shed at a few yards from, and of a similar size to, the dung pit; so that all the liquid manure necessarily runs from the stalls into the cess-pool or tank;—to this place also drains are made from the privies, and from the sinks in the kitchen and wash-house; so that every drop of soap suds, water and all dirty and refuse water finds its way to the cess-pool, which is never allowed to run over.

"The fields of corn stubble, and the second year's grass land, whether of clover, ray grass, or saintfoin, are carefully paired into thin clods: these clods, containing a proportion of the roots of the plants which have before been harvested from them, and much garden mold, becomes useful auxiliaries to the straw, bean haulm, and any other waste produce, capable of being dried for bedding, and spares the use of those materials, which if solely applied would require half the land of the farm to supply. This refuse, together with the parings of their lanes, the edges of their walks, and sides of their hedges, are dried, and then carried to their barns, where they are piled in a kind of stack, and portions of it are carried daily as it may be wanted for bedding into the cattle sheds.

"The bedding of the cattle is made with fresh clods every morning and evening; that part which has been under the head of the cow is, every morning, thrown under her forefeet, and that which was under her forefeet, is thrown into its place, and fresh clods, about one hundred and fifty pounds weight, is added to the bedding, and then straw, or other dry vegetable produce, is strewed over that; the same is done also every evening. The sheep and pigs are only supplied with fresh bedding once a day. The bedding lies under them seven days and seven nights, when the stalls are cleared out, and the dung conveyed into the dung-pit, at the back of the cattle sheds, where it lies until it has had the four weeks dung thrown into it.

"This mass is thus composed of portions of manure which have laid in the dung-pit four weeks, and upon which all the ashes and scrapings of the house and premises are thrown daily. The reservoir, or tank, into which all the drainings of the stable, &c. are conveyed, and which is necessarily contiguous, is, every other day, if not full enough, made so with water, and after being stirred up, is thrown with a scoop over the heap of dung. Now as this heap contains four weeks dung, fourteen wettings with such rich fermenting liquids more than doubles the whole heap for agricultural purposes.

"At the end of the fourth week, the dung hole, or dung pit, is emptied, by which means the pit's contents is again turned over, and its most rotten parts brought to the top. It is now formed into a heap from three to five feet high, and carefully covered with sods; by this covering, the heat and goodness of the dung is prevented from evaporating, and the rain water is kept from penetrating it, which would otherwise check its fermentation. When the heap has lain and fermented during two or three months, it is carried into the fields to be manured with it, and the sods which covered it are thrown into the bottom of the dung pit, where they lay and become excellent manure."

From the Farmer's Register.

Effects of Blacksmiths' Cinders as Manure.

To the Editor of the Farmer's Register—In the course of almost every farmer's agricultural experience, things are brought before his mind by circumstances, which, if properly investigated, might be useful to the public. Such matters generally die with the discoverer, and some of them, perhaps, are rediscovered an hundred times before they become fully the property of the public. Agricultural societies and journals often save from oblivion, valuable facts and opinions which might otherwise be lost. If each one who thinks he has observed any thing worthy of preservation, would lay it before some society, or the editor of some well conducted journal, we might occasionally obtain information capable of extensive application in matters thought by the original observer to be contracted in their nature. This formal introduction is not designed by the writer as a prelude to the annunciation of any important discovery of his own—it is rather intended to elicit from others information, which diffidence may have led them to withhold, and as an apology for troubling you, sir, with a matter whose importance the writer does dot feel capable of deciding.

Some twelve or fifteen years ago—the exact period is forgotten—I spread upon a small piece of land, perhaps about two acres, a large pile of cinders, which had long been accumulating, at the end of an old smith's shop. At the time this was done, the chief benefit was expected from some remains of sulphurous matter, which might be in the material, as much pit coal had been burned in the shop. I also hoped, that simply blackening the soil would improve its products by enabling it to absorb more heat. The next crop was fine, and it has continued to produce wonderfully ever since. For the last ten years, though very slightly cultivated, it has yielded a good crop of corn, except one year, when it brought a fine crop of oats. I do not recollect that I ever put on it any manure, besides the cinders, and I hardly suppose that the tenants, who have occupied it for the last nine years, have burdened it with manure. Indeed, I do not know that they have manured it at all. This little lot is considerably exhausted by scourging treatment; but I do not know, in this vicinity, a piece of high land of the same size, to which, if moderately manured, I would sooner trust for a fine crop of any kind.

I have felt much at a loss to account for the cause of this increase of fertility from the use of blacksmith's cinders. Since learning a little more, however, of the chemistry of agriculture, from your writings, and from other sources, I begin to suspect that I have learned the secret. Blacksmiths, while heating their iron and steel, use sand largely, by throwing it on the fire, and dipping the metal to be operated on in beds of it, to prevent oxydation. There is some potash also, probably, formed from the ashes of the coal exposed to extreme heat. Thus we have the materials for the formation of the silicate of iron and potash, which seems to be the acting manure in the famous Jersey marl. Of course, if this notion be correct, every blacksmith, while forming tools wherewith to work the land, is unconsciously preparing a most excellent material for its improvement.

It is true, that no great surface of land could be manured by shop cinders, if those from every shop in the state were carefully used. But in agriculture, small matters are not to be despised. Enriching a few acres in every neighborhood, throughout the country, by means heretofore neglected, is certainly a matter worthy of attention. But besides the cinders from smith shops, a vast amount of a similar material may be found in the scoriæ from the various kinds of iron-works in the country. These, probably, would be more valuable than ordinary shop cinders, inasmuch as a great deal of lime is used as a flux in iron-works. I have an intelligent and public spirited friend, largely engaged in iron-works, whose attention, I can almost pledge, to testing the value of such scoriæ as manure, should you think this matter worthy of notice in the Register. It should perhaps be noticed, that as the materials alluded to above, belong to the class of stimulating manures, they will, of course, need some aid from those which are nutritious. W. S. MORTON.

SALE OF DURHAM CATTLE.

We copy the annexed from the last Franfort, Ky. Commonwealth.

Messrs. BROWN & HODGES—Much anxiety having been expressed to know the result of the sales made by me on the 5th inst., of the full blood Durham Cattle, belonging to the estate of *James Haggin*, deceased, I herewith give you the result for publication.

One cow about 9 or 10 years old, to Robert Wm. Scott for $250.

One cow about the same age to S. P. Wesiager for $280.

One cow 3 years old, raised by Gen. Slanders, ¼ Long Horns, ¾ Durham, to G. E. Blackburn, $300

One heifer calf 8 or 9 months old to Benjamin Grays, $295.

One bull calf, 8 months old, to W. Rogers, $163.

One bull calf, 21 months old, to Joel Twyman, $233.

The sale of mixed blood also produced fair prices, some of which are also given.

One large red cow to Wm. Rogers, $98.
One large red cow to Philip Swigert, $91.
A heifer to Robert W. Scott, $180.
One cow to R. G. Jackson, $100.
One cow to do. $153.

The prices corresponded with the grade of the cattle.

The sales were made at public auction, at 4 months, for negotiable paper endorsed.

The best cow belonging to the estate had been sold a few days previously, at private sale for $400. H. BLANTON.

Nov. 12, 1835.

FAT COWS.—Mr. Rufus Smith, of Hatfield, slaughtered two cows last week, pasture fed, which weighed two thousand and seventy-five pounds! That aint slow.———Mr. Joseph Bemis of Chester, stuck a baby pig the other day, aged nineteen months, which weighed six hundred and twenty-three pounds! They go the "entire Swine" always in Chester.—*Northampton Courier.*

COMMUNICATIONS.

LETTERS FROM A FATHER,

Living in the State of New York,

To his Son in Western Pennsylvania.

NO. V.

To MY SON—In continuation of the treatise commenced in my last letter on the subject of manures, my next remark is, that when considerable quantities of manure are accumulated in one mass, the manure suffers much less waste, keeps better, undergoes its fermenting process to better advantage, and in the end comes out better manure, and more of it, than if it had been spread over a large surface in small and thin parcels. This is well understood, and it requires but little observation to be satisfied that such is the fact. This then furnishes a strong argument in favor of confining stock, during the season of foddering, to as small a space as practicable. Much will be gained, if cattle and other stock can be kept all the while, day and night, during that season, in the barn-yard, or in stables connected with it. I practice this—have practiced it for several years, and certain I am, that by doing so, I am a great gainer in the article of manure, as well as in the better keeping of my stock. But this is practicable only in cases where water is connected with the barn-yard. It is a serious error in your case, that your cattle and other stock have to go in the winter forty rods for water; yet the circumstances of your location indicated no better way, and you are not in the least blamable for so arranging your barn establishments. Yet it is certain, that in consequence of this arrangement, you suffer great loss in the article of manure, and it is equally certain that your stock does not winter nearly so well, as it would if there were water in the barn-yard. You will do well to think of correcting this imperfection as soon as circumstances will permit. If there is no way to conduct water to your barn-yard by underground drains, or otherwise, the only alternative will be to dig a well, and introduce a pump. Not unlikely the gains of a single winter will be sufficient to remunerate the expense of both.

There are very prevalent among farmers certain practices which are manifestly incorrect in relation to the economy of manures. Such is the practice which prevails to a great extent, of stacking hay in meadows, and giving it out there in the winter season to stock. This practice is objectionable for two reasons, first, because it is an injury to meadows to have any stock graze and tread upon them in the fall, in the winter, or in the spring. The small gains of grazing at those seasons of the year are far more than balanced by the diminished quantity and value of the next crop. Besides, the treading and poaching of the ground by stock at those seasons directly injures the soil, and renders it unfit for thrifty production. I maintain, that no stock should be allowed to go on meadows, from the first of October till the next crop is taken off.

But secondly, the practice here objected to involves a prodigious waste of manure. I know that many farmers consider this as a cheap and economical method of getting dung into their meadows; but there is fallacy in their reasoning. It is not disputed that when fodder is thus given out around a stack, a small place in its immediate vicinity, will be abundantly and superabundantly manured. Of course, the next crop growing upon it will generally be large, and the second may be considerably improved by the manure thus deposited upon it. But here is an end of beneficial results. The whole of this dung, excepting so much as is useful to the two crops, lying as it does on the surface of the ground, and not at all incorporated with it, escapes into the atmosphere, and after two years it is scarcely perceptible that the soil is in the least benefited by it.

But to the practice now laboring under censure, there are other weighty objections. When fodder is given out from stacks, the dung which it makes is not distributed as it should be. It is accumulated just round the stack, in vastly greater quantities than are needed there, and it is only at small distances from the stack that enough is deposited to be perceptibly useful. It is true, that the evil here complained of might be, and should be when stacking is practiced, partially remedied, by going on to the ground in the spring, and making a better distribution of the manure. But this is rarely attended to. Now I venture to say, let the hay of which any given stack is composed, be foddered out in stables, or in a barn-yard, prepared or not prepared in the manner heretofore prescribed—let the manure which it makes be subsequently applied judiciously to the farm, and incorporated with the soil—let these things be done, and I say without the least hesitation, the results in manure will be twice as valuable as if the hay had been foddered out around the stack.

The principles maintained here and elsewhere in these letters, if correct, go to show the impropriety of practicing as you told me you had done, that is, turning your stock in the winter on to a meadow lying adjacent to your barn, and foddering them there, carrying the hay far into the meadow, and distributing it in all directions. This, you told me, you had done, with intent to improve the meadow, by thus causing manure to be scattered upon it. By this means your meadow would no doubt be a little improved, but the value of this improvement would by no means be equal to the worth of the manure which the same hay would make, if given out in your barn-yard, and the manure subsequently removed to a field under the process of tillage, and there incorporated with the soil. To manure meadows at all, with fresh unfermented dung, is in general a very wasteful and objectionable practice. It rarely avails to any other useful purpose then to improve the first and second crop, and sometimes, when the season is peculiarly dry, it results in a total failure. It never adds any thing to the permanent improvement of the soil. In regard to the economy of manures, it should, I think, be considered as a maxim among farmers, to have all the fodder of a farm given out at one place, or as nearly so as practicable. Hence then, if stacks must be made, let them be made by the side of your barn-yard. Or, if many stacks be needed, let them all be made close together, at some convenient place in a pasture, and near to water.

I ought not, in my treatise on manures, to overlook the hogpen. This should always be depended upon for considerable supplies of excellent manure. Modern improvers have suggested a variety of means, by the use of which the quantity of manure in connection with the hogpen is greatly increased. This is done chiefly by providing, in the outer yard of the hogpen, sufficient space to contain large quantities of litter, such as straw, weeds, the leaves of trees, mud, or earth of any kind. These are thrown in plentifully, and being troden upon by the hogs, and intermixed with their own excrements, the whole mass undergoes a fermentation suitable to prepare it for usefulness, and comes out excellent manure.

I should have suggested, in its proper place, the practicability of greatly increasing the quantity of your manure, by gathering the fallen leaves of trees, and applying them to your dung heap. These are classed among the best materials for conversion into manure, and the stores of them at your easy command are inexhaustible. Trifling as this may appear to you, I doubt whether you can spend two or three days in autumn to better advantage, than by going into the woods, with a team and carriage suitably rigged, to gather leaves. The proper receptacle of these will be, the basin in your barn-yard, or your hogpen. Thus you may pile leaves in your barn-yard, heaps upon heaps, and by so doing increase the quantity of your manure to an indefinite extent.

The mud of swamps has been found by myself and many others to be an excellent improver of the soil, but I am not aware that you have swamps in your vicinity. I have scarcely a doubt that either plaster or lime would operate to great advantage on the soil of your farm, and on most of the soils in Western Pennsylvania. But at present these articles can be obtained there only with difficulty, and at high prices. It is hoped that all impediments to their free use in that country will soon be removed, by public improvements to facilitate transportation. The subject of manures will be continued in my next.

A FATHER.

New York State, December, 1835.

The Seedling Chinese Mulberry Hardy.

BY W. W. B.

The doctrine that plants and trees from a southern latitude, too tender for our northern climate, will become more hardy here by raising them from the seed, we have long believed, and in a former communication maintained in some remarks we made on the cultivation of the vine. Its truth has lately been exemplified in the cultivation of the Chinese Mulberry from the seed. It has been discovered, that plants raised from the seed sent from China, and also from seed which was produced in this country, are more hardy and better adapted to our climate than the trees introduced into this country from Europe, originally from the Philippine Islands. We have the testimony of D. Stebbins, Esq., Secretary of the Hampshire and Hampden (Mass.) Agricultural Society to this effect, in relation to the trees raised in Massachusetts from the seed sent by the Chinese Missionaries.—(See Gen. Far. vol. 5, page 313.) This difference in the hardiness of the two trees, (the European and

the seedling,) Mr. Stebbins ascribes to the fact of the seed coming from the northern part of China, about the latitude of Italy. "That the seed which was imported last year for the first time," says this writer, "came from a high latitude, is evidenced from the plants resisting the severity of the last winter so well, even in exposed situations, and being so nearly acclimated in the seed, it may be expected that trees from such seed will be as likely to bear our climate as the Italian White Mulberry, both being from nearly the same latitude, yet from different quarters of the globe." "Plants from the seed of last year, which were exposed to the open winter, have this season grown to a good sized tree, *and appear to form wood earlier, and with more facility than the Morus Multicaulus from Europe.*" There is undoubtedly truth in this reasoning. Now the same might be expected from seed raised in this country, resulting from this general law, *that nature adapts the constitution of the offspring to the situation in which it is placed—the climate in which it is to be reared.* We were therefore happy to see *this* confirmed in a recent statement in relation to several Chinese Mulberries raised from seed, which was produced in this country by Professor Ives, of New Haven.—(See the Silk Culturist for Nov. page 63.) The fact contained in it is so important to the silk grower, that we transcribe it entire, with the prefatory remarks of the Editor:

"The fact contained in the following letter from D. Beardslee, a gentleman of science and observation, certainly conduces to the establishment of the theory, that trees from the seed will withstand the severity of our climate better than those propagated in any other way. We hope the Doctor and other gentlemen will continue their observations and communicate to us the result."

"Mr. Editor—Dr. Eli Ives, of New Haven has in his garden three seedling Chinese Mulberry trees. In the summer of 1833, a small Chinese Mulberry tree in his garden, then I believe in the second year of its growth from the slip, produced one berry, which ripened. This was planted in August, and the same season produced the trees I have mentioned. They have now endured two winters—are four feet high, *were very slightly injured by the last winter, and show wood which is well hardened and perfect to the tips of the twigs.* The trees raised from slips, though standing within a few feet, *were severely injured by the last winter, and show wood which is green, succulent, and badly matured.* I have seen it suggested, that seedling Chinese Mulberry trees would prove more hardy than those raised from slips, and I communicate this fact, as tending to confirm that opinion, and also to correct what seems an erroneous impression, that this tree cannot ripen its seed in our climate.

"I am, sir, yours, &c.

H. C. Beardslee.

"*Munro, Oct.* 5, 1835."

This we think is a *strong case*, and proves incontestably, *that the seedlings are more hardy and better adapted to our climate than the foreign tree*, which, however, increased in this country by layers, cuttings, &c., still retains the same tender constitution and disposition to vegetate late in the season, and consequently not to ripen its wood, which it had in the clime from which it was introduced. We deem this an important discovery. *The seedling Chinese Mulberry*, is undoubtedly the tree for us to cultivate. We hope that those who have trees that produce seed will be careful to save it and raise trees from it, which will be far better adapted to our climate than the tender exotic from the Philippine Islands. When once we have these, they may be increased to any extent by cuttings, layers, &c., for this will be but multiplying the same hardy plant. Thus every farmer in our country, who has a soil adapted to the common White Mulberry, may have fields of this rich product of a foreign clime, waving its luxuriant foliage, with which, by the aid of that little insect the *Silk Worm*, he may clothe his wife and daughters with the finest silk, with as much ease and with as little expense as he now clothes them in garments of flax or wool, and realize to himself a golden harvest from the sale of this precious material, which is destined ere long, in the nature of things, to become one of the great staple commodities of our country, and a vast source of individual and national wealth. W. W. B.

HIGHWAYS AND BY-WAYS.

BY CORNELIUS PLOCKER.

Mr. Tucker—It is, I believe, more than two years ago, when you had the goodness to insert in the Genesee Farmer a few lines I had sent to you for that purpose, and for which, in very flattering terms, you conveyed to me your thanks, inviting me at the same time to continue my communications.

Cheerfully would I have obeyed this call, if any thing had occurred to me worth publishing; and even now I am apprehensive that you will reject for the same reason what I am about to offer again to your valuable paper. I shall risk it, however, being confident that I shall thereby at least evince to you, sir, my wish for its continuance.

Several well written articles have appeared to our notice, on the subject of the roads, complaining of their badness, and of the laws regarding them, the authors of which are sanguine for amelioration; but they seem to have forgotten, that more has been done in this western part of New York these last thirty years, than has been done on any equal extent of ground in England, for perhaps as many generations. To extol the English road system, is extoling our own system; for there, as well as here, the farmers are the road makers and menders; but the English farmers have to pay toll, even upon the very roads which they have been assessed to make or mend, *gratis*, and to arrive at which many of them have to send their teams and servants out at midnight, eight or ten miles from their homes, and then in some places as many more miles to go to the nearest gravel pit to dig, sift, load, &c.

The King's high-roads are consequently very good, but they are, in comparison with our highways, very few, and not by far so good as our incomparable ridge-road. The by-roads are still fewer when compared with our cross roads, in consequence of the vast space of ground which the farms occupy, being generally from three hundred to a thousand acres in dimension. How wretched these by-roads are appears by their wagon and cart-wheels, the rim of which is from half a foot to a foot and upwards broad. It is true, the broader the wheels are the less there is to be paid for toll at the turnpikes, but this saving is too trifling to compensate for the extra expense of those wheels. They are broad in order to prevent their sinking in the clay. A well loaded wagon is never seen on these roads with less than four horses drawing a head of each other. Two horses abreast cannot go on account of the wide and deep ruts that line these by-roads. So much for the excellence of the English country roads.

In the vicinity of London another road system is in operation. Scavengers do or cause the work to be done there. They are proverbial among the Londoners for indolence, and for wickedness and insolence they are unparalelled—the dread of unprotected females who have to pass them, and to whom these wretches give constant cause of complaint for their indecent observations, if not worse usage.

Surely, under such a system of road-mending it cannot be contemplated to subject us, and I even hope that the writers I have alluded to will reflect and abandon their plan to make us farmers pay in dollars and cents to commissioners and their underlings, whose aim it might be to have bad roads in order to have constant employ.

With respect to what foreigners may say in derision of our roads, it ought to be as little regarded as their claim for the superiority of their mud, straw, and halm hovels, over our substantial and comfortable log huts. Let us excuse them, however, for their excessive love of country: in their place we, Americans, might commit the same fault.

Cornelius Plocker.

North Murray, Orleans co. Jan. 20, 1836.

From the Tennessee Farmer.

Rearing of Stock.

In our last number, we promised to notice this subject at an early period. We now proceed, in part, to redeem that pledge, by replying to the Queries of our correspondent from Middle Tennessee.

The following Rules, we think, are applicable to the rearing every species of Stock:

First—Breed from the best stock you can procure. There is little or no difference in the expense of raising a fine high blooded horse, worth from $150 to $3000, and an ill made, weak and worthless animal, which, perhaps, may be sold for from $30 to $60.

Secondly—Let your stock be well fed, well sheltered, and in every respect well attended to—No half starved animal, exposed to every inclemency of the weather, will attain to perfection, and many will die under such treatment—It is, besides, one of the thousand instances of false economy, but, in truth, of shameful waste, thus to treat any animal; because, it is not only attended with a diminution of its value, far exceeding the expense saved, but it is a wanton waste of food. The corn, for instance, required to sustain the life of a miserable, half starved hog, weighing, perhaps, at three years old, from 120 to 150 lbs., and of fattening him, if judiciously fed, would have caused him, at eighteen months old, to have weighed from 200 to 300 lbs., and the result is similar in regard to other stock.

Thirdly—Let your animals be as regularly supplied with salt as with food.

Fourthly—Let your food be properly and economically prepared. One bushel of grain, ground or steamed, will be equal to one and an half, or two, fed whole and dry—and hay or straw, cut fine, is proportionably superior in value to the same quantity, fed without cutting.

Fifthly—Let the best practicable plan be adopted for saving the manure produced by the litter, dung and urine of the stock. This will, if judi-

ciously applied, be worth half their feed, and sometimes more than all of it.

As to the kind of stock, whether horses, mules, hogs, cattle or sheep, which it would be most profitable to raise—this will depend on the capital and the description of each man's farm. For instance, the farmer who is able to keep brood mares of the best blood, and can breed from first rate horses, should prefer raising fine horses to mules—while he who can only avail himself of coarse, ordinary mares, should breed mules. Where there is a sufficiency of open land, for grain, meadow and pasture, and several hands constantly employed, and also the necessary shelters, we have no hesitation in saying, that the farmer ought to raise at least horses or mules, cattle and hogs—Because, the horses and mules, if well supplied with good hay, will require but little grain—the cattle will consume the straw, shucks, and other provender, which could not be be consumed by either horses or hogs, and, except for pasture in summer, they can be raised with very little expense, while the manure they will make will be of great value. The whole corn crop, allowing the oats and rye for horses, may be most profitably fed to hogs, and with the aid of clover, pastures in summer, and roots, such as artichokes, Irish potatoes, mangel wurtzell, &c., these animals, if properly attended to, and always kept in good order, will be found to be amongst the most profitable kind of stock; whereas, if reared in the common old fashioned mode, they will not pay for the grain consumed by them, even at the most moderate price. In the the rearing of stock, it should always be remembered, that care, punctuality in feeding, and a strict observance, not of parsimony or stinginess, but of true economy, which, to a great extent, consists in liberality, are indispensably necessary to a profitable result. By the aid of these, many animals will, by their manure alone, pay for their feed, and all will, by the same means, make full remuneration for a large portion of their sustenance.

We should think, that by the aid of clover, judiciously managed and used, the occupants of the fertile lands of Middle Tennessee could not fail to find the rearing of stock a most profitable employment.

MORUS MULTICAULIS SEED.

From the repeated applications which have been made to us within the last few weeks for this article, we deem it necessary to the public information to state, that none can be obtained either in this country or France. Solicitous of promoting the silk culture, and of enabling those who desired to enter into it to do so at the least possible expense, we were anxious, if practicable, of having a supply of this seed secured, and accordingly induced Mr. *Robert Sinclair, Jr.* the Seedsman of our concern, to send to France with a view of procuring it, and in order to make assurance donbly sure, we further induced him to interest our Consul General in the business. He accordingly wrote to that gentleman, as also to one of the most distinguished Seedsmen in that country—the result of his inquiries, so auspiciously made, is soon told—*No seed of the Morus multicaulis is to be had in France*—the propagation of the plant being there, as in this country, by layers and cuttings.

We regret this the more, as it greatly curtails the means of multiplying this most excellent shrub, and tends to add to the expense of providing orchards of it, as the trees, layers, and cuttings, come infinitely higher than would the seed. We hope, however, that our Nurserymen will correct this evil, by setting apart a proper proportion of their largest shrubs, *expressly for seed;* their *interest*, as well as patriotism, would dictate that they should do so. It is impossible that they can supply the demands of the country through the means of the usual appliances of their trade, by layering and cuttings, and, therefore, if no higher motives should influence them than that of money, *that* will be present henceforth, to urge them to the discarge of a duty, which as good citizens they owe their country.—*Farmer & Gardener.*

FILLING UP GULLIES.

The following deserves attention, and will doubtless receive it. The injurious effects of galls and gullies, and the difficulty of filling them up, so as to *remain*, have long been sources of vexation as well as a heavy tax upon the labor of the husbandman; but if the method recommended below should prove, on trial, to answer as well with others as it has done with the writer of the subjoined communication, the means of *cure* will be so simple, and the expense so trifling, that galls and gullies must soon disappear from among us.—*Far. & Gar.*

From the Tennessee Farmer.

HERDS GRASS.—I have recently applied this grass to a new purpose; and was led to this application of it by a knowledge of the very strong turf it forms upon morasses. This turf is nothing more than a kind of carpet formed by the long and abundant root of this grass, so interwoven as to bear the weight of animals grazing.

A thought occurred, that the root of this grass might be applied to the stopping of gullies—channels washed out by the rains. I fell to work, and in three years I succeeded in filling up one of 300 yards in length, and one or two feet in depth.

This gully being near the middle of one of my cotton fields, and at places impassable with the plough—was quite a nuisance in that respect, as well as being a fine vehicle to carry away my soil.

Be it known, I had tried rock walls—they made the rent worse; brush and stumps also. Now, if any one of the readers of the Farmer should not have learned this mode of filling gullies, let him try it—and do it in the following manner: Put in a few cotton or corn stalks, or brush, and scatter the herds grass in with it without threshing—it will not then so easily wash away—and the task is done.

When your grass takes root in the bottom of a gully, it catches the sediment as it passes; thus, by the operation of natural causes, the evil is removed, and that law (in part) which formed the gully, stops it. Here is no art or science, but a little common sense. When your gully becomes full—and it will—suffer the plough to slide over and not plough up the grass, else the gully might re-form. The grass will occupy a row or two in width, so would the gully, with this difference—the grass will make fine hay, and afford grazing too—so nothing's lost. V******.

Wilson co., Nov. 15, 1835.

From the New England Farmer.

BROOKS' SILK SPINNING MACHINE.

The late valuable improvements that I have made in many respects on my machine, by which I spin nearly double to each spindle that was spun by the machine stated in the following letter, induce me again to invite those engaged in silk culture, to try *Brooks' Patent Silk Spinner;* fully believing it is the best adapted to spinning silk in the best manner, for any use whatever. As a confirmation of its giving satisfaction, I publish the following letter from a citizen of Ohio, who never saw the machine before he purchased one; and had no instruction how to use it, except the printed directions which are furnished with each machine.

Mount Pleasant, Jefferson co., Ohio,
11th mo., 28th, 1835.

Respected Friend—Thine of the 14th has just come to hand, and I am sorry to learn that mine of 7th mo. last never reached thee. After having tried my machine, I wrote immediately, to let thee know that I would give thee thy price for the right of this state. Not being acquainted with the merits of the machine, I thought best not to purchase the right, until I had tried it; I am well pleased with it, and have been anxions to obtain the right.

I have succeeded well, and my success has encouraged a number of my acquaintances to turn their attention to the business, some of whom I have promised machines to, on the credit of thy having offered me the right of the state, either as thy agent, or under purchase of thee. Having tried the machine, and also having ascertained that the demand for it is likely to be greater than I expected last spring, I am willing to give thee —— for this state.

With much difficulty I succeeded in getting 150,000 eggs last spring; they hatched and did well with me, and I have about enough prepared for the loom to make one hundred yards, seven eighths wide. I expect to make upwards of three hundred yards out of my crop, and am preparing to go largely into the business next year. Thy machine meets my expectation every way; all the fault I find with it is, I have not spindles enough. I have spun eight ounces per day with the four spindles. I want a machine that I can spin two or three ounces a day with.

I have saved about three millions of eggs for next year; one third of which I expect to feed myself, and all of which I expect will be manufactured in this village at my factory; I am putting them out to be fed in different neighborhoods. We feed principally on the native leaf, which we find to do very well. After I get through with feeding my worms next summer, I expect to visit your state, and shall call to see thee. I have obtained a weaver from London, and we expect to manufacture every thing, from a ribbon to a bolting cloth. Thine, with respect, T. W.

In a previous letter the writer of this requested liberty of me to build a machine on a large scale, to be propelled by steam power. Also my agent at Mansfield, Conn. is building a machine to carry many spindles propelled by water power. I have published the above letter, although the writer did not expect it to appear in print. I have not doubted the propriety of publishing the letter, believing his philanthropy would be well pleased to be useful to the public.

ADAM BROOKS.

Burning Surface Soil and Clay.

The following method of burning surface soil and clay, as practiced by that judicious farmer, Mr. *Curwen*, may be not only interesting but useful to many agriculturists, where ashes is difficult of obtaining.

"Mounds of seven yards in length, and three and a half in breadth, are kindled with 72 bushels of lime. First a layer of dry sods or parings, on which a quantity of lime is spread, mixing sods with it, then a covering of 8 inches of sods, on which the other half of the lime is spread and covered a foot thicker, the height of the mound being about a yard. In 24 hours it will take fire. The lime should be immediately from the kiln. It is better to suffer it to ignite itself, than to effect it by the operation of water. When the fire is fairly kindled, fresh sods must be applied. I should recommend says Mr. Curwen, obtaining a sufficient body of ashes before any clay was put on the mounds. The fire naturally rises to the top. It takes less time, and does more work, to draw down the ashes from the top, and not to suffer it to rise above six feet. Where limestone can be had, a small quantity in the mounds serves to keep the fire up and improve the quality of the ashes.—*Far. & Gar.*

LIME.

In *Wales*, the lime-burners have changed their method of calcining the stone. Instead of using *kilns* as formerly, they now manufacture the article without any kiln at all, by simply managing it as charcoal pits are burned in this country. The lime-stone is planted in large bodies, which are called coaks, the stones not being broken small as in the ordinary method. The lime thus obtained is said to be preferable to that burnt in the ordinary kilns. This plan would be especially desirable where transportation is an object, as the crude stone could be taken to the field whereon it may be intended to be used, and there converted into lime; thus saving much trouble and expense in hauling.—*Far. & Gar.*

From the experience of others do thou learn wisdom, and from their feelings correct thine own faults.

From the New England Farmer.

Indian Corn.

T. G. FESSENDEN, Esq.—Dear Sir: In December, 1834, you published in the N. E. Farmer a communication from me, concerning a species of Indian corn, which I had planted the preceding season, the seed of which I had procured of Judge Buel. Its chief recommendation, in my estimation, resulted from the fact, that it came to maturity about a fortnight earlier than any kind of field corn which the farmers in my neighborhood were accustomed to plant; thus anticipating the early autumnal frosts, and enabling me to sow corn land with wheat in tolerable season. I expressed the opinion also, that it had been as productive as any other corn which I had ever planted; but as I had tried it but once, I did not feel so confident of its productiveness, as to commend it on that account. I have planted the same kind of corn the past season and no other; and the result has fully equalled my expectations. I was able to gather my corn leisurely and finished sowing my corn and potato ground by the 3d of October. In former seasons, with a different species of corn, I was always hurried, and was seldom able to finish sowing wheat till about the middle of October, and in some seasons, not until after the 20th. Wheat sown so late, is more liable to blast, and is more exposed to be winter-killed, than that which is sown earlier, and has opportunity to get well rooted before the ground freezes up. Late sown wheat will sometimes produce a fair crop, but success is so uncertain, that it should be avoided when practicable.

I have taken some pains the past season to ascertain the productiveness of this corn, with some degree of certainty. In order to try the experiment, I selected a piece of ground, which, by actual measurement, contains one acre and twelve rods. This ground was planted the preceding year, about one half of it with potatoes, the other half with corn. This selection was made, not from choice, because I do not approve of planting the same ground for two successive years, and more especially with the same kind of crop. The result of this experiment showed evidently that it is bad husbandry to plant the same ground twice in succession with the same crop,—for the corn on that part of the piece where corn grew the preceding year, was not so well eared, nor were the ears so large, as on that part which had been planted with potatoes.

In the beginning of May, twelve loads of coarse manure from the barn yard, were spread upon the land, and it was then covered under a furrow of five or six inches deep. Eight loads of fine manure, composed chiefly of earth that had been deposited in a low spot in the yard the preceding summer, were then spread upon the land when it was harrowed with a light seed harrow, till the surface of the ground was well pulverized and the fine manure was mixed, and partly covered with the earth. The ground was planted on the 13th of May, in rows of three and a half feet asunder, with a space of two feet between the hills. The seed was soaked about twelve hours in warm water, mixed with plaster, planted five kernels in a hill, and at the first hoeing, thinned out, so as to leave but three stalks standing in each hill. The corn was hoed three times, and the last hoeing was performed early, about the 25th of June, some days before the corn began to show its tassels. I have long been of the opinion, that cutting or disturbing the fibrous roots just before the corn is about to set for ears, is injurious to the crop, as it impairs its capacity of imbibing nourishment at a time when it is most essential.

The cultivator was used at each hoeing, and the old practice of hilling up the corn at the last hoeing was dispensed with. The stalks were cut early in September, but not until they had generally began to change their color, nor until many of the ears were fully ripe. The corn was not picked till the 30th Sept. and between that and the 5th of October was husked out and cribbed. From this acre and twelve rods of land, were gathered 217 bushels of ears of good sound corn and seven bushels of ears of poor corn, making 224 bushels in the whole. Had I anticipated so large a product, I would have preserved and threshed it by itself, in order to ascertain the exact quantity of shelled corn. But a part of it was husked and mixed with other corn before my curiosity to know the quantity was excited. From the experiments which I have made, I am satisfied that there were, at the time of husking, about half as many bushels of corn as there were of ears.

My crop suffered a considerable diminution from two causes. A little before the time for the first hoeing, I found that my neighbor's poultry had been very busy in the field and had actually scratched and pulled up at least one forth of the piece. This had to be planted over the second time and was much less productive than the first planting.

While the corn was in the milk, a violent gust of wind passed over the field, and laid the whole of it almost prostrate. Many stalks were broken off and never rose again. But for these two causes, there would have been a considerable increase in the product, and an almost total abstraction of the poor corn. The green and mouldy ears were wholly attributable to these causes, and without them the poor corn would scarcely have exceeded one per cent.

I am, very respectfully, yours, &c.

SAMUEL LATHROP.

West Springfield, Jan. 1, 1836.

From the Baltimore Herald.

Mixed Cultivation of Potatoes.

We are indebted to a subscriber in Washington county, Va. for the subjoined communication, detailing a series of experiments in the raising of potatoes and corn as a crop in common. We thank him for his favor; it is just such an essay as is most valuable to agriculturists generally. Practical results are always preferable to speculation and theory, because nothing being left to uncertainty, the husbandman is encouraged to go on and follow the example of his successful neighbor. We could wish that others would tread in the footsteps of our Washington correspondent, and give us statements of their experiments, the interests of the cultivators of the soil would be thereby greatly promoted.

To the Editor of the Farmer and Gardener:—

Sir—I have noticed in the Farmer and Gardener of the 17th inst. in description of a sample of some fine potatoes presented to you, and also quotations of other samples for inspection, the weight of the heaviest of which is five lbs. I would state for the information of farmers, that I have been a potato raiser for many years; and, perhaps, it may be beneficial to others engaged in their culture to understand my method of raising as also the quantity I have raised for several years. In 1830, I made an experiment on a new plan in planting a part of my crop; planting *corn* and *potatoes* on the same land. I planted my corn six feet east and west, and a row of potatoes between each alternate row, and when I gathered my crop, I was so well pleased with the plan that I have planted in the same mode ever since, and have succeeded in always producing good crops, except one year, which was a failure from a severe drought. In 1831, I had sixteen acres in corn at nine feet distance, and potatoes in the centre of the corn rows, my crop was fine: on the sixteen acres the product of potatoes was 2500 bushels, corn 25 1-2 bushels to the acre; the potatoes, taken altogether, the largest I have ever raised: one weighed 5 pounds, 9 ounces, a number other, 4 pounds and upwards; and I have no doubt but there could have been from 80 to 100 bushels taken from my crop that year, that would have averaged 3 pounds. I have come to the conclusion, that one fourth, if not more, can be raised from the same quantity of seed; they grow much better than in a patch of entire potatoes. The potato is a vegetable that grows best in a cool, moist climate, and I am of opinion the corn crop is but very little diminished in the yield, while the potato crop is much promoted in the product in planting the two crops, on the same land. I believe it a great advantage, as in cultivating tne crops thus, but little time is lost. I throw a furrow open and drop the potato on the plan of planting corn, and cover them with the plough, at the time the corn should be ploughed the first time. The most labor in raising the potato in this way, is in taking them up in the fall and putting them in the cellar. In 1832 my crop was valuable, it yielded 2400 bushels raised the same way. In 1833 I had but a light crop, as before stated, owing to a severe drought; in 1834 my crop was 2900 bushels, the present crop was 2000. The potato is a profitable crop. I find them, from experience in feeding, good food for horses, cattle, hogs, and sheep. The hog is most benefitted to have them cooked and mashed, and meal mixed among them. It is an easy matter, and but little expense, to have a *steam* establishment to cook from 1 to 20 bushels at the same time. I have one that 8 bushels can be cooked in, in two hours. The plan is simple and cheap. Any tolerable handy farmer can fix one with a trifling expense. Corn in the ears, or shelled, cut straw, or any kind of food that it may be necessary to have cooked, can be prepared in the same establishment without any alterations being necessary in the machine. It may not be uninteresting to state a few circumstances as to the particulars of a part of my crop. In 1834, from 8 acres which I had in corn and potatoes, (it being a part of the land I had in the mixed crop, I realized an average of the two crops, corn and potatoes, rating the later at 20 cents per bushel and the corn at 40 cents, of $52 per acre, besides pumpkins and beans: of pumpkins, I gathered 6 waggon loads.

I noticed the description of a large radish in the essay on vegetables. A radish which grew in my garden this season, weighed 12 pounds with the tops and small roots trimmed off.

Washington County, Va. W. B.

☞ List of Payments unavoidably deferred till next week.

Clover Seed.

RED CLOVER of the different varieties, and from different sources, *White Dutch Clover*, *Lucerne*, or *Dutch Clover*, affording 3 or 4 crops in a season, and some other foreign varieties, constantly for sale at the ROCHESTER SEED STORE by

REYNOLDS & BATEHAM.

January 28, 1836. jan 30–ar3wf4w

Grass Seed.

CONSTANTLY for sale at the ROCHESTER SEED STORE, *Timothy* or *Spear*, *Red Top* or *Herds*, *Orchard* or *Cocksfoot*, *English Ray*, *Pacey's Perennial Rye*, *Italian Perennial Rye*, and several other foreign grasses, most of which have been successfully tried in this country.

N. B. Cash paid for Grass Seed, Beans, Peas, &c. REYNOLDS & BATEHAM,

No. 5, Arcade Hall.

January 28, 1836. jan 30–ar3wf4w

Monroe Horticultural Garden & NURSERY.

THE subscriber offers to the public a choice selection of Fruit Trees, of French, German, English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries, Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses, Vines, Creepers, Herbaceous Perennial Plants, Bulbous Roots, &c. &c.

ALSO—A few hundred of the Morus Multicaulis, or Chinese Mulberry, the White Italian Mulberry by the hunbred or thousand, Grape Vines of both native and foreign varieties, mosty of large size, for sale by the single vine, hundred or thousand, at reduced prices. The subscriber has a large collection of Green-House Plants of choice and select varieties, and in good condition.

☞ Orders for *Mr.* Rowe's Nursery received by the Publisher of this paper.

Catalogues will be sent to those who wish them, gratis, or may be had by calling at the office of the Genesee Farmer. ASA ROWE.

Greece, *Monroe* co. N. Y. Sept. 13, 1834.

COBB'S MANUAL OF CULTURE OF SILK, &c. for sale by

HOYT & PORTER.

From the Tennessee Farmer.

Obstacles to Agricultural Improvement.

Strange as it may appear to a reflecting mind, it is nevertheless true, that the great cause of agricultural improvement, on which the happiness and prosperity of individuals, as well as the national wealth, strength and resources are so entirely dependent, is more effectually impeded, by a belief in a large proportion of those engaged in agriculture, that it is not increased knowledge, but additional physical force, which they want. We often hear it said, "we already know more than we can practice, and wherefore should we disturb ourselves about acquiring additional knowledge."

To such an objection it should be sufficient to reply, that every degree of knowledge of one's trade or profession, must always be beneficial. The mechanic who is a perfect master of his trade, although placed in circumstances which preclude the possibility of his reducing all his knowledge to practice, will still be found universally to succeed better than his neighbor whose ability perhaps exceeds his knowledge—So it is with the farmer or planter. Although he may be unable to reduce to practice all the knowledge of which he is now in possession, yet there is much, no less valuable, of which he is destitute, which if possessed he could reduce to practice. Increased knowledge would moreover enable him to do, what he can and does perform, in a manner much more profitable, and often much easier than the one he now pursues.

But generally speaking, the objection to endeavors for obtaining increased agricultural knowledge, which we are now combatting, will be found to proceed from those who are the devoted advocates of that wretched, laborious and unprofitable land killing system, which has so long and so generally prevailed, especially in the Southern States—one would think that if the voice of reason were disregarded, occular demonstration would long since have left this system without a single advocate. What has it accomplished in two hundred years past? It has been most diligently pursued ever since the first settlement of the United States and what has been the result? Why invariably, without a single exception, it has reduced the countries to which it has been applied from fertility to barrenness, and forced their inhabitants either to abandon it, to substitute in its stead a different and a better system or to remove from their native homes, and the society of their friends and relatives, to some distant clime, whose soil had not yet been subjected to its destructive operation. Look at Virginia, North and South Carolina, Georgia, and even the older settlements in the States of Tennessee and Kentucky, and what do we behold, with the exception of those spots in which a better system has been resorted to, we see large tracts of country, once fertile, either so impoverished as to be totally unfit for cultivation, or at least reduced to that state, which renders them now incapable of producing one half, often one third, and not unfrequently not one eighth of their original product! The truth manifestly is, and it has been most clear and decisively demonstrated by actual experiment, that such are the inherent defects of the system, that even the highest degree of original fertility has been unable successfully to resist its deleterious influence. The once supposed inexhaustible fertility of the rich plains of Kentucky, of West Tennessee, and of the richest bottom lands in both States, has rapidly declined under its baneful operation. Pennsylvania, and the Eastern States, also, were once subjected to its operation, and experinced the same fate—under the pressure of necessity, they have resorted to an improved system of agriculture, and what has been the consequence? Why, that in about fifty years, under its operation, many sections of those States, after being reduced almost to perfect barrenness, have attained to a degree of fertility far beyond that which they originally possessed, and which now enables them to confer wealth, comfort and prosperity on their diligent and economical cultivators. Is it not passing strange, that with such clear, unequivocal, and decisive evidence, daily before our eyes, any one should still be found, incredulous as to the utility, nay the absolute necessity, of AGRICULTURAL IMPROVEMENT.

From Malte-Brun's Geography.

A Lost Fruit Tree.

A large and beautiful fruit tree, celebrated among the ancients, the *persea* of the Greeks, and the *lebakh* of the Arabians, seems to have disappeared from the Egyptian soil; at least, naturalists cannot recognise it in any of the species now existing in that country. It has been supposed to be the aguacate or *avocatier* of St. Domingo, to which in consequence of this conjecture, botanists have given the name of *Laurus persea*. Others have attempted to prove the identity of it with the sebesten (*Cordia sebastena,*) but the differences are too glaring to allow this hypothesis to be tenable. We are only assured by positive testimony that this tree had become more and more rare, and at last disappeared before the year 700; and that having come from Persia, where its fruit was crude and bitter, it acquired by culture those excellent qualities for which it was so celebrated. These circumstances ought to have led naturalists, to look for this tree in the East Indies.

From the Edinburgh Quarterly Journal of Agriculture.

East India and American Cotton.

The growth of cotton might be much increased in India. There are ten distinct *species* of this plant known, of which there are many *varieties*. Of these species, two, the *Gossypium indicum* and *G. arboreum*, are natives of India. The cotton wool imported from India does not bear so high a character in the British market as the American. The American cotton plant is the *Gossypium herbaceum;* but the inferiority of Indian cotton wool, arises not so much from the difference of the species, as from the mode of managing and gathering the crop. In America the cotton wool is gathered carefully by the hand from the pods as it ripens, and placed in bags suspended from the necks of the gatherers. The locks of wool which fallon the ground, are gathered and kept separate from the rest. *The Indian cotton is gathered all at once,* whether it is thoroughly ripened or not; and it is thrown on the ground to dry and won. The mixture of the earth and brittle pods with the cotton, by this excessive carelessness, renders it dirty and unfit for the delicate machines of this country. The imports of this article into Britain will show the superiority which the Americans at present maintain over our Indian brethren. The quantity of American cotton spun in 1832 amounted to 212,313,696 lbs. whilst the East Indian of the same year only amounted to 18,287,280 lbs. The total import of cotton in 1832 was 270,690,600 lbs., of which 229,007,272 lbs. came from America.

East India Sugar.

Sugar is an article which may be raised to any extent in India; but until it is manufactured in a manner very different from the present, all reduction or equalization of the duty will never make East India sugar an acceptable commodity in our markets. Considerable quantities, imported from Mauritius and India, are sold in retail to ignorant people as the best West India sugar, at prices far above its intrinsic value. The culture of sugar is simple enough in India, but it is very slovenly. The squeezing of the juice from the cane is clumsily effected; and after the liquid is nearly evaporated, no farther care is taken of it, the residuum being not true sugar but sugar mixed with treacle. The red and black canes are sold in the markets, or at the gates of the cities, at a half penny for three or four large canes, to passengers, who chew them as they walk along.

ACUTENESS OF LEXICOGRAPHERS.—The last London Quarterly reviews at full length, with severity and no small degree of research, the standard Dictionaries of the English Language—Todd's Johnson, Noah Webster, &c. Our learned countryman is cut up without mercy, and Dr. Johnson and his improvers fare little better. It is evidently the opinion of the critic that the character and structure of the English language has not yet been analyzed by any one fully competent to the task. But we were about to give a single sample of the *definitions* afforded by the corrected, amended, improved, and orthodox edition of Johnson, taken from a number adduced by the reviewer:

"CRANBERRY, s. the whortleberry or bilberry."

Here we have no less than three distinct blunders in so many words: blunders so gross that not a servant in the house of the shrewd lexicographer, could have failed to detect them on the first blush. It would seem from this and other specimens afforded, that our dictionary manufacturers in delving for the import of words which nobody uses, are apt to lose the meaning of those familiar to every school-boy. Todd's Johnson is not within reach at this moment, but we may presume he would elucidate the most common implements of husbandry after this fashion:

'AXE, s. the scythe, or grindstone.'

'CART, s. the cradle, or harrow.'—*New Yorker.*

Fresh White Mulberry Seed.

100 POUNDS of *Genuine White Mulberry Seed*, raised in Connecticut, and warranted the growth of 1835. For sale at the sign of the "GOOD SAMARITAN."

Hartford, Conn., Jan. 5, 1836. jan 16-f4t*

Fisher on the Vine.

OBSERVATIONS on the Culture of the European Vine, to which is added a Manual of the Swiss Vignerons and the art of Wine making, translated from the French—Price 75 cents. For sale by

june 20 HOYT & PORTER.

Seed Corn.

THE subscriber has a quantity of the celebrated 12 rowed Dutton Corn, raised by J. Buel. The advantages of raising this corn are its prolific qualities, being easily made to yield from 70 to 80 bushels to the acre, and its early maturity, ripening in about 100 days from time of planting.

W. THORBURN, Seedsman,
347 N. Market-st. opposite Post Office.

Albany, Dec. 25.—j9

1000,000 Silk Worm Eggs,

FOR SALE.

THE subscriber having promised to supply so many individuals who called to see his worms at work last year, and he having already sold so many, deems it proper to advise those who have not yet received any, and are intending to have some, that they must order them at once, or possibly they will be disappointed, the demand being so great, and this being the proper season to forward them. They are sold for 25 cents a thousand. Orders enclosing the amount will be punctually attended to.

JAMES HOUGHTON.

Rochester, Jan. 7, 1836. j7tf3m

Robbins' Planting Machine.

WITH this Machine Corn, Beans, Peas, Broom Corn, Mangel Wurtzel, Turneps, Onions, and seeds of almost every description, can be planted with more system and correctness than can be done in the usual manner of planting with the hand and hoe. One man may easily plant five acres a day, placing the seeds any given distance apart, from two or more inches, and in rows two and a half feet apart.

Machines can be had by applying to REYNOLDS & BATEHAM, Rochester; C. N. BEMENT, Treasurer of the State Agricultural Society, Albany; BUSHROD BUCK, Lanesborough, Berkshire county, Mass.; and DANIEL T. BUCK, Lowville, Lewis county, agent and proprietor for making and vending said machines, at all of which places it is intended to keep a supply on hand.

Lowville, Nov. 24, 1835. nov 28-6m

The Complete Farmer & Rural

ECONOMIST,

BY Thomas G. Fessenden, Editor of the New England Farmer, second edition, revised, improved, and enlarged, just published and for sale at the Rochester Seed Store.

This work is got up in superior style, published on fine paper with new stereotyped impression, and is decidedly the neatest thing of the kind yet published in this country. Booksellers and others supplied by the dozen at the trade price.